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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/652,641	08/28/2003	Subhradeep Chowdhury	EH-10993 (03-478)	1821
34704	7590	11/03/2004	EXAMINER	
BACHMAN & LAPOINTE, P.C. 900 CHAPEL STREET SUITE 1201 NEW HAVEN, CT 06510			ALLEN, ANDRE J	
			ART UNIT	PAPER NUMBER
			2855	

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/652,641

Applicant(s)

CHOWDHURY, SUBHRADEEP

Examiner

Andre J. Allen

Art Unit

2855

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "comprising," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-6, 8-11, 14-15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gleeson in view of Froidevaux.

Regarding claims 1 and 11 Gleeson teaches a first tube 18 comprising a first end 24 positioned at a measurement location [0030], and a second end 22; a second tube 72 comprising a first end 74, and a second end 76; a connector 24 60 comprising a transducer 48 for connecting said second end of said first tube to said second end of said second tube (fig. 1) and a first tube being a length sufficient to allow or transient absolute/dynamic pressures [0024]. Gleeson does not teach a terminating element attached to the first end of said second tube wherein said second tube is of a length sufficient to substantially eliminate the incidence of resonance. Froidevaux teaches a sensor having a terminating element eliminating the incidence of resonance between two chambers (col. 1 lines 45-53). Therefore, it would have been obvious to a person having ordinary skill in the art of sensing physical parameters at the time the invention was made to modify the apparatus taught by Gleeson with a terminating means that prohibits resonance as taught by Froidevaux for the purpose of obtaining exact and reliable measurements (Froidevaux col. 1 line 43). With respect to the said second tube being of a length sufficient to substantially eliminate the incidence of resonance, Gleeson in view of Froidevaux does not disclose this structure. However since Froidevaux at least teaches a means to prohibit resonance (col. 1 lines 45-53), it would have been obvious to a person having ordinary skill in the art to provide the most feasible structural modification possible since it appears

that the claimed tube length and the terminating means taught by Gleeson in view of Froidevaux are variances that provide the function of eliminating resonance.

Regarding claims 2-6 Gleeson in view of Froidevaux does not teach dimensions regarding length of 180:1, 13:1, three and thirty six inches, six and twelve inches and an inner diameter of a first tube equal to a diameter of the second tube, it would have been obvious to a person having ordinary skill in the art of pressure sensors to modify the dimensions of the tube structure in Gleeson in view of Froidevaux with respect to length and diameter to the most operable parameters necessary for the purpose of constructing a pressure sensor that operates efficiently and provides optimum performance with respect to obtaining pressure readings.

Regarding claim 8-10 and 14-15 and 17 Gleeson in view Froidevaux does not disclose a terminating element selected from the group consisting of a cap and a steady state data system, a particular type of transducer (accurate scanning valve) and hypo-tubes. However, since Gleeson in view of Froidevaux at least discloses a termination means associated with a transducer and tubes, it would have been obvious to a person having ordinary skill in the art to select whatever terminating means readily available to the public since it appears that the claimed terminating means taught by Gleeson in view of Froidevaux are variances that provide the function of eliminating resonance.

3. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gleeson in view of Froidevaux as applied to claim 1-6 and 8-11 above, and further in view of Lawsing.

Regarding claim 7 Gleeson in view of Froidevaux does not teach a high temperature transducer. Lawsing teaches a high temperature transducer (abstract). It would have been obvious to a person having ordinary skill in the art of pressure sensors at the time the invention was made to modify the devices taught by Gleeson in view of Froidevaux with a temperature sensor as taught by Lawsing for the purpose of providing a user with temperature readings to observe conditions within a system.

4. Claims 20-21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gleeson in view of Acker.

Regarding claims 20 and 21 Gleeson does not teach a second sensor secured to a said second tube wherein said first sensor takes dynamic measurements and said second sensor takes static state measurements. Acker teaches a second sensor 27 secured to a said second tube wherein said first sensor [0022] takes dynamic measurements and said second sensor [0023] takes static state measurements. It would have been obvious to one having ordinary skill in the art of pressure sensors at the time the invention was made to modify the sensor taught by Gleeson with means to detect multiple pressure readings as disclosed

by Acker for the purpose of providing various pressure readings to calculate a pressure differential (Acker abstract).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 12,13,18 and 19 is rejected under 35 U.S.C. 102(e) as being anticipated by Gleeson.

Regarding claim 12 Gleeson teaches a first tube 18; a second tube 72; and a first sensor 48 between said first and second tubes.

Regarding claim 13 Gleeson teaches measuring transient dynamics within said first tube [0024].

Regarding claim 18 Gleeson teaches a cooled sensor [0024]

Regarding claim 19 Gleeson teaches a pressure transducer 48.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre J. Allen whose telephone number is 571-272-2174. The examiner can normally be reached on mon-fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Andre Allen
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